REMARKS

Amendments to the Claims

Claims 2, 4-14, 16 and 18-29 have been canceled to further prosecution. Applicants reserve their rights to pursue claims to this subject matter in a continuing or divisional application.

Claims 1, 3, 15 and 17 have been amended.

New Claims 30-45 have been added.

Claims 1 and 15, as amended, and new Claims 34, 42, 44 and 45 recite "an isolated recombinant anti-TNF-α antibody." Claims 1, 3, 15 and 17, as amended, and new Claims 30-45 recite "antigen-binding fragment." Support is found in the specification, for example, at page 10, lines 8-15; page 16, lines 15-19; page 17, lines 2-8; page 30, lines 22-25; and page 34, lines 12-24. In addition, support is found in the specification of priority application US Serial No. 07/670,827, filed March 18, 1991, for example, at page 8, line 12 to page 9, line 23; page 12, lines 18-26; and page 52, lines 18-20.

Claims 1 and 15, as amended, and new Claim 44 recite "competitively inhibits binding of A2 (ATCC Accession No. PTA-7045) to human tumor necrosis factor TNF α." Support is found in the specification, for example, at page 17, lines 2-8; page 19, line 17 to page 20, line 2; page 25, lines 16-23; and page 30, lines 5-12. In addition, support is found in the specification of priority application US Serial No. 07/670,827, filed March 18, 1991, for example, at page 12, line 18 to page 13, line 4; page 14, lines 3-9; and page 19, lines 3-10.

Claims 1 and 15, as amended, and new Claims 34, 42, 44 and 45 recite "binds to human TNF-α with an affinity of at least 1×10^8 liter/mole, measured as an association constant (Ka)." Support is found in the specification, for example, at page 61, lines 2-5 and Example X, particularly page 81, lines 2-12. In addition, support is found in the specification of priority application US Serial No. 07/670,827, filed March 18, 1991, for example, at Example X, page 68, lines 19-23.

Claims 3 and 17, as amended, recite "human constant region and a human variable region." New Claim 34 recites "human constant region." New Claim 42 recites "human IgG1 constant region." New Claims 44 and 45 recite "human IgG4 constant region." Support is found

in the specification, for example, at page 19, lines 1-6 and page 31, lines 12 to page 32, line 2. In addition, support is found in the specification of priority application US Serial No. 07/670,827, filed March 18, 1991, for example, on page 12, line 1 to page 13, line 26 and page 26, lines 10-19.

New Claims 30 and 38 recite "comprises at least one human light chain and at least one human heavy chain." New Claims 31 and 39 recite "wherein the light chain comprises all antigen-binding regions of the light chain of A2 (ATCC Accession No. PTA-7045)." New Claims 32 and 40 recite "wherein the heavy chain comprises all antigen-binding regions of the heavy chain of A2 (ATCC Accession No. PTA-7045)." New Claims 33 and 41 recite "wherein the light chain comprises all antigen-binding regions of the light chain of A2 (ATCC Accession No. PTA-7045) and the heavy chain comprises all antigen-binding regions of the heavy chain of A2 (ATCC Accession No. PTA-7045)." New Claims 34, 42 and 45 recite "comprises the antigen-binding regions of A2 (ATCC Accession No. PTA-7045)." Support is found in the specification, for example, at page 16, lines 15-26; page 17, lines 2-8; page 19, lines 1-6; page 20, lines 8-12; page 23, lines 3-7; page 25, lines 16-23. In addition, support is found in the specification of priority application US Serial No. 07/670,827, filed March 18, 1991, for example, at page 9, lines 21-23; page 12, line 8 to page 13, line 4; page 14, lines 14-18; page 18, lines 17-19; page 21, lines 15-21; page 22, lines 13-21; page 23, line 14 to page 24, line 2; page 24, lines 13-15; and Example X, particularly page 68, lines 3-25.

New Claims 35 and 43 recite "a composition comprising the antibody or antigen-binding fragment" and "a pharmaceutically acceptable carrier." Support is found in the specification, for example, at page 61, line 14 to page 62, line 3. In addition, support is found in the specification of priority application US Serial No. 07/670,827, filed March 18, 1991, for example, at page 41, line 14 to page 42, lines 4-6.

New Claim 36 recites "the antibody or antigen-binding fragment of Claim 1, which is of immunoglobulin class IgG1, IgG2, IgG3, IgG4 or IgM." Support is found in the specification, for example, on page 31, lines 12-13. In addition, support is found in the specification of priority application US Serial No. 07/670,827, filed March 18, 1991, for example, on page 12, lines 1-9.

New Claim 37 recites "the antigen-binding fragment of Claim 1, wherein said fragment is selected from the group consisting of Fab, Fab', $F(ab')_2$ and Fv." Support is found in the

specification, for example, at page 26, line 4. In addition, support is found in the specification of priority application US Serial No. 07/670,827, filed March 18, 1991, for example, at page 20, lines 16-19.

No new matter has been added. Therefore, entry of the amendments into the application is respectfully requested.

Amendments to the Specification

The Examiner states that the application is to be reviewed and all spelling, trademarks, and like errors corrected and that the status of related applications be updated.

Applicants have amended the specification to comply with the requirement to indicate trademarks and to correct typographical errors.

Applicants have amended the specification to update the related applications paragraph.

Applicants have amended the specification at page 25, lines 16-23, to recite ATCC Accession No. "PTA-7045," and to recite that c134A was deposited pursuant to the Budapest Treaty requirements with the American Type Culture Collection (ATCC), "10801 University Boulevard, Manassas, Virginia 20110-2209, on September 22, 2005." Support for the amendments and the deposit of the cell line for the A2 antibody is found in the specification, for example, at page 25, lines 16-23.

Applicants have amended the specification at page 86, line 26 to page 87, line 12, to correct the spelling of "Geysen." Applicants submit evidence that the correct spelling is "Geysen" in the enclosed Abstract (Exhibit A).

Applicants have corrected a typographical error on page 87, line 12 for "cA2."

No new matter has been added.

Priority

Claims 1, 3, 15, 17, as amended, and new Claims 30-45 are entitled to claim the benefit of priority application US Serial No. 07/670,827, filed March 18, 1991.

This priority application has been properly referenced on page 1 of the specification in compliance with 35 U.S.C. §120.

Rejection of Claims 2, 6-9, 13, 16, 20-22, 27 and 29 under 35 U.S.C. § 112, second paragraph

A. Claims 7, 21 and 29

The Examiner states that the recitation of "cA2" is indefinite because it is merely a laboratory designation which does not clearly define the claimed product.

Applicants have canceled Claims 7, 21 and 29 in order to further prosecution. Claims 1, 3, 15 and 17, as amended, and new Claims 30-45 do not recite cA2. The independent claims recite "ATCC Accession No. PTA-7045" for the cell line of the A2 antibody. The dependent claims contain the same limitation. As discussed below, on September 22, 2005, Applicants deposited the cell line for the A2 antibody with ATCC under the Budapest Treaty. The specification at page 25, lines 16-23 have been amended to recite the ATCC accession number, the date of deposit, a description of the biological material and the name and address of the depository.

Reconsideration and withdrawal of the rejection are respectfully requested.

B. Claims 2 and 16

The Examiner states that the recitation of "inhibits a pathological activity of TNF-α" is indefinite because the parameters are ill-defined and ambiguous.

Applicants have canceled Claims 2, 4-14, 16 and 18-29 in order to further prosecution. Claims 1, 3, 15 and 17, as amended, and new Claims 30-45 do not recite "inhibits a pathological activity of TNF-α."

The rejection is moot. Reconsideration and withdrawal of the rejection are respectfully requested.

C. Claims 6, 8, 9, 20, 22 and 23

The Examiner has rejected Claims 6, 8, 9, 20, 22 and 23 as indefinite in the recitation of "high affinity."

Claims 6, 8, 9, 20, 22 and 23 have been canceled in order to further prosecution. Claims 1, 3, 15, 17, as amended, and new Claims 30-45 do not recite "high affinity." The rejection is moot. Reconsideration and withdrawal of the rejection are respectfully requested.

D. Claims 13 and 27

The Examiner has rejected Claims 13 and 27 as lacking proper antecedent basis for the term "detectably labeled form".

Applicants have canceled Claims 13 and 27 in order to further prosecution, thereby obviating the rejection. Claims 1, 3, 15 and 17, as amended, and new Claims 30-45 do not recite the term in question. The rejection is moot. Reconsideration and withdrawal of the rejection are respectfully requested.

Objection under 37 C.F.R. § 1.75 (d)(1) and M.P.E.P. § 608.01(1)

The Examiner has objected to the specification as failing to provide proper antecedent basis for terms recited in Claims 10-12.

Claims 10-12 have been canceled in order to further prosecution. The amended and new claims do not recite the terms in question. The rejection is moot. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims 1-29 under 35 U.S.C. § 112, first paragraph

A. Claims 1-29

The Examiner states that Claims 1-29 lack enablement in producing any "TNFα-specific antibody," having "at least part of a non-human immunoglobulin variable region" and "at least part of a variable region."

Claims 2, 4-14, 16 and 18-29 have been canceled in order to further prosecution. Claims 1, 3, 15 and 17, as amended, and new Claims 30-45 do not recite "at least part of a non-human immunoglobulin variable region" and "at least part of a variable region" and the claimed antibodies are enabled by the specification. Reconsideration and withdrawal of the rejection are respectfully requested.

B. Claims 7, 21 and 29

The Examiner has rejected Claims 7, 21 and 29 under 35 U.S.C. § 112, first paragraph as lacking enablement for cA2 because the deposit information and amendment to the specification to recite the deposit have not been made.

Claims 7, 21 and 29 have been canceled, thereby obviating the rejection. In addition, Claims 1, 3, 15 and 17, as amended, and new Claims 30-45 do not recite "cA2." The claims recite "ATCC Accession No. PTA-7045" for the cell line of the A2 antibody.

In accordance with 37 C.F.R. § 1.809 (b)(1), on September 22, 2005, Applicants deposited the cell line for the A2 antibody (designation c134A) with American Type Culture collection (ATCC) under the Budapest Treaty. The ATCC accession number is PTA-7045. In addition, the specification at page 25, lines 16-23 has been amended to recite "As examples of antibodies according to the present invention, murine mAb A2 (ATCC Accession No. PTA-7045) of the present invention is produced by a cell line designated c134A." The specification at page 25, lines 16-23 has been further amended to recite "c134A was deposited pursuant to the Budapest Treaty requirements with the American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, Virginia 20110-2209, on September 22, 2005."

Lastly, Applicants are filing herewith a Statement under 37 C.F.R. §1.804, §1.806 and §1.808.

Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims 10-12 and 24-26 under 35 U.S.C. § 102(b)

The Examiner has rejected Claims 10-12 and 24-26 under 35 U.S.C. § 102(b) as being anticipated by Le *et al.* (WO 92/16553).

Claims 10-12 and 24-26 have been canceled, thereby obviating the rejection. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims 1-6, 8-12 and 14 under 35 U.S.C. § 102(a)(b)

The Examiner has rejected Claims 1-6, 8-12 and 14 under 35 U.S.C. § 102(a)(b) as being anticipated by Jonker *et al.* (EP0387095).

Claims 2, 4-6, 8-12 and 14 have been canceled in order to further prosecution. Claims 1 and 3, as amended, are not anticipated. Jonker *et al.* does not disclose all of the elements of the claimed invention, as amended. For example, Jonker *et al.* does not disclose an antibody which competitively inhibits binding of A2 (ATCC Accession No. PTA-7045) to human TNF-α. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims 1-29 under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 1-29 under 35 U.S.C. § 103(a) as being unpatentable over Jonker *et al.* (EP0387095) and/or Moller *et al.*, *Cytokine*, 2: 162-169 (1990) in view of Zerler (EP 380,068) and Queen *et al.* (WO 89/09622).

Claims 2, 4-14, 16 and 18-29 have been canceled in order to further prosecution. Claims 1, 3, 15 and 17, as amended, are not obvious. For example, none of the references above or in combination, teach or suggest an antibody which competitively inhibits binding of A2 (ATCC Accession No. PTA-7045) to human TNF-α. The cited references do not teach or suggest the claimed invention, as amended.

Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims 1-29 under the Judicially Created Doctrine of Obviousness-type Double Patenting

The Examiner has rejected Claims 1-29 under the judicially created doctrine of obviousness-type double patenting over Claims 1-14 of U.S. Patent No. 6,284,471, Claims 1-9 of U.S. Patent No. 6,790,444, and Claims 1-9 of U.S. Patent No. 7,070,775. The Examiner has provisionally rejected Claims 1-29 over the claims of co-pending USSN 11/400,787 and Claims 1, 3-5, 8-12, 23 and 25 of copending USSN 11/143,926.

Claims 2, 4-14, 16 and 18-29 have been canceled and Claims 1, 3, 15 and 17 have been amended in order to further prosecution. Applicants note this rejection and will file a terminal disclaimer, if necessary, upon indication that the only remaining rejections are the Double Patenting rejections.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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